

Amendments to the Claims

Claim 1 (currently amended): A method of isolating at least one plasmid from other component(s) of a liquid, comprising: ~~which method comprises the steps of~~

- (a) providing a separation matrix comprised of one or more porous carriers, which carrier(s) present anion exchange groups on external surfaces as well as pore surfaces and a pore size distribution that does not allow access of plasmids to pore surfaces;
- (b) contacting said matrix with the liquid to adsorb the plasmid(s) to ligands present on the external surfaces of the separation matrix; and, ~~optionally,~~
- (c) contacting an eluent with the separation matrix to release the plasmid(s) and recovering plasmid(s) from a fraction of said eluent.

Claim 2 (currently amended): A method of isolating at least one plasmid from other component(s) of a liquid, comprising: ~~which method comprises the steps of~~

- (a) providing a separation matrix comprised of one or more porous carriers, which carrier(s) present anion exchange groups on external surfaces as well as pore surfaces and a DNA exclusion limit of at least about 270 base pairs;
- (b) contacting said matrix with the liquid to adsorb the plasmid(s) to ligands present on the external surfaces of the separation matrix; and, ~~optionally,~~
- (c) contacting an eluent with the separation matrix to release the plasmid(s) and recovering plasmid(s) from a fraction of said eluent.

Claim 3 (currently amended): ~~A method according to~~ The method of claim 2, wherein the DNA exclusion limit of the separation matrix is at least about 1,000 base pairs.

Claim 4 (currently amended): ~~A method according to any one of the preceding claims,~~
The method of claim 1 or 2, wherein the separation matrix is in the form of essentially spherical particles having an average diameter of 30-50 μm .

Claim 5 (currently amended): ~~A method according to any one of the preceding claims,~~
The method of claim 1 or 2, wherein the plasmids are of a size that exceeds about 3,000 base pairs.

Claim 6 (currently amended): ~~A method according to any one of the preceding claims,~~
The method of claim 1 or 2, which is a large scale process wherein at least about 1 grams of plasmid is recovered.

Claim 7 (currently amended): ~~A method according to any one of the preceding claims,~~
The method of claim 1 or 2, wherein one of the other components of the liquid is RNA, which in step (b) is adsorbed to ligands present on the pore surfaces of the separation matrix.

Claim 8 (currently amended): ~~A method according to~~ The method of claim 7, wherein the plasmids recovered in step (c) are essentially free from RNA.

Claim 9 (currently amended): ~~A method according to any one of the preceding claims,~~
~~which comprises the following additional step~~ The method of claim 1 or 2, further comprising:

- (d) subjecting the plasmid-containing eluate obtained from step (c) to hydrophobic interaction chromatography (HIC).

Claim 10 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1 or 2, wherein said anion-exchange groups are selected from the group ~~that consists~~ consisting of quaternary amine (Q) groups and diethylamine groups.

Claim 11 (currently amended): ~~Use of a separation matrix comprised of one or more porous carriers,~~ A separation matrix for the purification of plasmids comprising one or more porous carriers which carrier(s) present anion exchange groups on external surfaces as well as pore surfaces and a pore size distribution that does not allow access of plasmids to pore surfaces, ~~for the purification of plasmids.~~

Claim 12 (currently amended): ~~Use of a~~ A separation matrix ~~comprised of~~ for the purification of plasmids comprising a porous carrier to the surfaces of which ~~wherein~~ anion-exchange groups have been immobilized on the surfaces, which matrix presents a DNA exclusion limit of at least about 270 base pairs, ~~for the purification of plasmids.~~

Claim 13 (currently amended): ~~Use according to~~ The separation matrix of claim 12, wherein the DNA exclusion limit of the matrix is at least about 1,000 base pairs.

Claim 14 (cancelled)

Claim 15 (currently amended): ~~Use according to any one of claims 11-14, The~~
separation matrix of claim 11 or 12, wherein the separation matrix is in the form of
essentially spherical particles having an average diameter of 30-50 μm , and the
plasmids are of a size that exceeds about 3,000 base pairs.

Claim 16 (currently amended): ~~Use according to any one of claims 11-15, The~~
separation matrix of claim 11 or 12, wherein ~~one of the other components of the liquid~~
~~is RNA, which in step (b) is adsorbed to the pore surfaces of the separation matrix~~
absorb RNA impurities, while the plasmids are adsorbed to the external surfaces of
the separation matrix absorb the plasmids.

Claim 17 (currently amended): ~~Use according to any one of claims 11-16 The~~
separation matrix of claim 11 or 12, for large scale purification of plasmids in
volumes exceeding about 1 grams of plasmid.

Claim 18 (original): A kit comprising, in separate compartments, a separation matrix
comprised of one or more porous carriers, which carrier(s) present anion exchange
groups on external surfaces as well as pore surfaces and a pore size distribution that
does not allow access of plasmids to pore surfaces; at least one buffer; and written
instructions that describes how plasmids are purified from other components of a
liquid using said kit.

Claim 19 (original): A kit comprising, in separate compartments, a separation matrix
comprised of a carrier to the surfaces of which anion-exchange groups have been
immobilised, which matrix presents a DNA exclusion limit of at least about 270 base

pairs; at least one buffer; and written instructions that describes how plasmids are purified from other components of a liquid using said kit.

Claim 20 (currently amended): ~~A kit according to~~ The kit of claim 19, wherein the DNA exclusion limit of the matrix is at least about 1,000 base pairs.

Claim 21 (currently amended): ~~A kit according to any one of claims 18-20,~~ The kit of claim 18 or 19, wherein the matrix is in the form of essentially spherical particles having an average particle diameter of 30-50 μm .

Claim 22 (currently amended): ~~A kit according to any one of claims 18-21,~~ The kit of claim 18 or 19, wherein the separation matrix is provided in a chromatography column the diameter of which is at least about 10 cm.